

Throttle Shaft Repair Kit for Kohler Carburetors

To replace the throttle shaft, the carburetor must be removed from the engine. The existing throttle plate and throttle lever will be reused with kit components. A work bench vise, metal file or grinder and screwdriver with smaller flat blade will be needed. The fuel bowl and float will also have to be removed for this repair. New gaskets are provided in the kit.



WARNING: Explosive Fuel!

Gasoline may be present in the carburetor and fuel system. Gasoline is extremely flammable and its vapors can explode if ignited. Keep sparks, open flame and other sources of ignition away from engine. Wipe up spilled fuel immediately.

This Kit Contains –

| Qty. | Description |
|------|-------------------------------------|
| 1 | Tool, bushing installation (spacer) |
| 1 | Gasket, bowl |
| 1 | Gasket, bowl baffle |
| 1 | Gasket, bowl retaining screw |
| 1 | Screw, #2-56 x 7/32 in. brass |
| 1 | Shaft, throttle control |
| 1 | Bushing, throttle shaft |
| 1 | Tube, Loctite® #609 sealer |
| 3 | Screw, #3-56 x 7/32 in. brass |
| 1 | Installation Instructions |

To Install –

Remove Throttle Shaft

1. To ensure correct reassembly, mark throttle plate and carburetor body with a marking pen. Also take note of throttle plate position in bore, and throttle lever position.
2. **Carefully and slowly** remove the screws securing the throttle plate to throttle shaft. Remove and save the throttle plate as it will be reused. Discard the screws.
3. File off any burrs which may have been left on throttle shaft when screws were removed to prevent scratching the bore when removed.
4. Remove the throttle shaft from carburetor body. Remove and discard the foam rubber dust seal from throttle shaft. Temporarily save the old shaft for use in Step 2 in bushing installation procedure.
5. Remove and transfer throttle lever as follows:
 - a. Note the position of the throttle lever with respect to the cutout portion of throttle shaft.



WARNING: Prevent Eye Injury!

Suitable eye protection (safety glasses, goggles, or face hood) should be worn for any procedure involving the use of compressed air, punches, hammers, chisels, drills, or grinding tools.

- a. Carefully grind or file away the riveted portion of shaft; remove throttle lever.
- b. Install throttle lever to new throttle shaft. Make sure lever is installed correctly as noted in Step a.
- c. Apply Loctite® to threads of (1) #2-56 x 7/32 in. brass screw (use #3-48 x 7/32 in. brass screw with 2-49/64 in. shaft); secure lever to shaft.

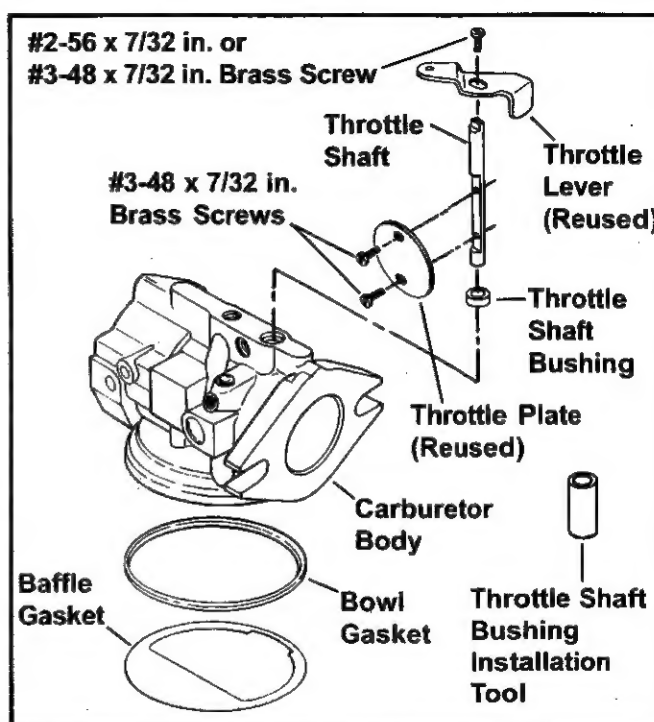


Figure 1. Throttle Shaft Repair Details.

Throttle Shaft Bushing

Ensure the dust seal counterbore in carburetor body is clean and free of chips and burrs. Thoroughly clean the carburetor body in a carburetor cleaner. Refer to the cleaning instructions in the Fuel System section of the appropriate Engine Service Manual.

2. Cut or grind approximately 1/4 in. of material off the top end of the old throttle shaft. Remove any burrs or rough edges. Install the old throttle shaft into carburetor body to use as a pilot.
3. Coat the outside surface of throttle shaft bushing with Loctite® from kit. Slip bushing over shaft. Using installation tool from kit and vise, press bushing into counterbore until it bottoms in carburetor body. Refer to Figure 2.

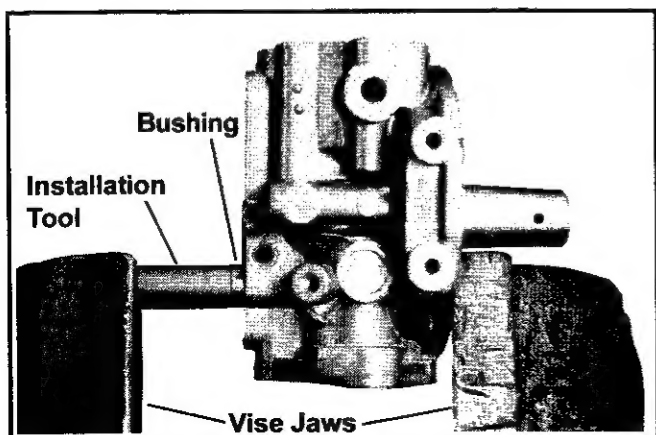


Figure 2. Installing Throttle Shaft Bushing.

4. Allow Loctite® to "set" for 5-10 minutes, then remove throttle shaft.
5. Install new throttle shaft with lever into carburetor body. Rotate shaft and check for binding.

NOTE: If binding occurs, locate cause and correct before proceeding. Use throttle shaft to align bushing if necessary.

6. Remove shaft and allow Loctite® to "set" for an additional 30 minutes before proceeding.
7. Wipe away all excess Loctite® from bushing and throttle shaft.

Install Throttle Shaft and Plate

1. Install throttle shaft into carburetor with cutout portion of shaft facing out.
2. Install throttle plate to throttle shaft. Make sure marks are aligned and plate is positioned properly in bore. Apply Loctite® to threads of (2) #3-48 x 7/32 in. screws. Install screws so they are slightly loose.

3. Apply finger pressure to throttle shaft to keep it firmly seated against pivot in carburetor body. Rotate the throttle shaft until throttle plate fully closes the bore around its entire perimeter; then tighten screws.

4. Operate the throttle lever and check for binding between the throttle plate and carburetor bore. Loosen screws and adjust plate as necessary; then tighten screws securely.

Reassemble Carburetor

1. Install the fuel inlet needle into inlet seat. Install float and slide float pin through float hinge and float hinge towers on carburetor body.

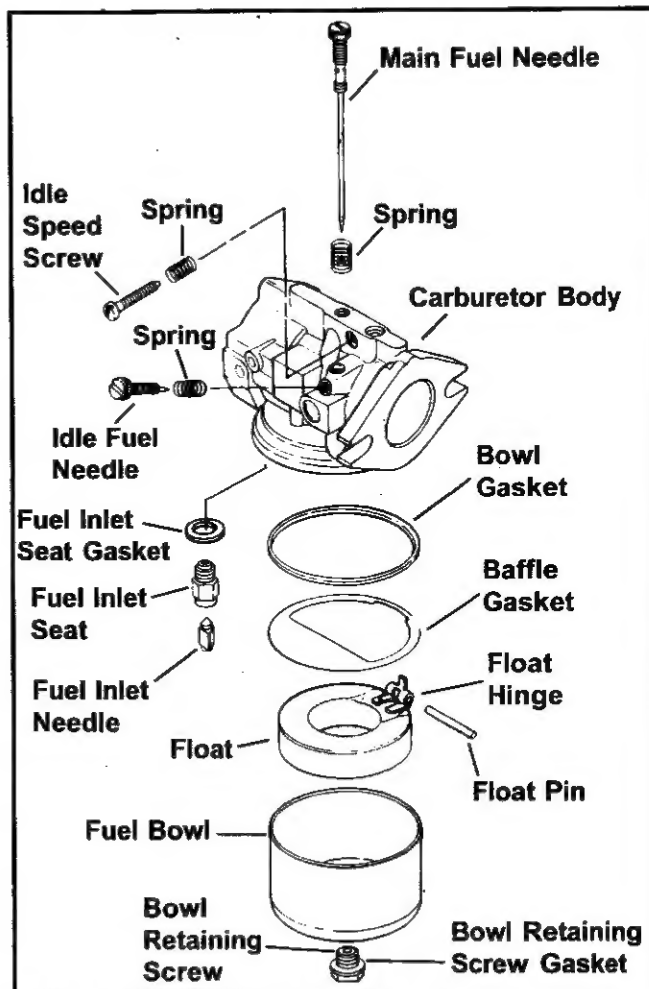


Figure 3. Kohler-Built Adjustable Jet Carburetor-Exploded View.

2. **Set float level:** Invert carburetor so the float tab rests on the fuel inlet needle. There should be **11/64 in. ($\pm 1/32$ in.)** clearance between the machined surface of body and the free end of float. Bend the float tab with a small screwdriver to adjust. Refer to Figure 4.

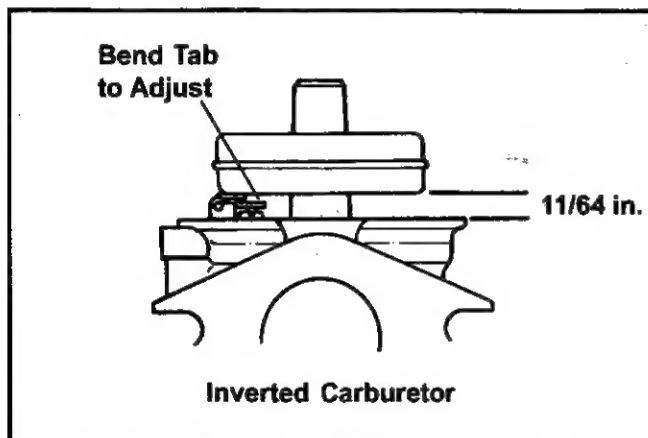


Figure 4. Setting Float Level.

3. **Set float drop:** Turn the carburetor over to its normal operating position and allow float to drop to its lowest level. The float drop should be limited to 1-1/32 in. between the machined surface of body and the bottom of the free end of float. Bend the float tab with a small screwdriver to adjust. Refer to Figure 5.

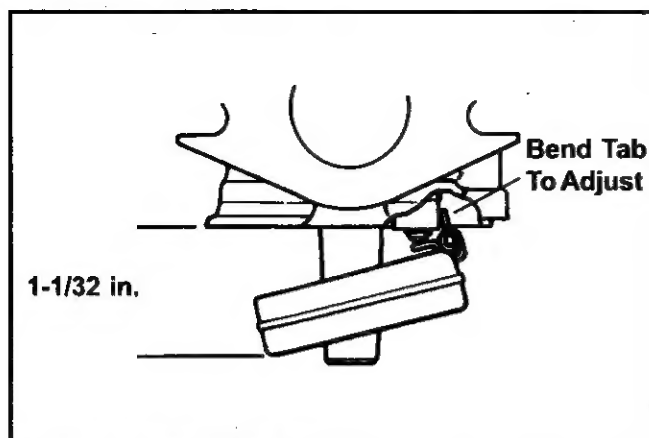


Figure 5. Setting Float Drop.

4. **Check float-to-float hinge tower clearance:** Invert the carburetor so the float tab rests on the fuel inlet needle. Insert a .010 in. feeler gauge between float and float hinge towers. If the feeler gauge cannot be inserted, or there is interference between the float and towers, file the towers to obtain the proper clearance. Refer to Figure 6.

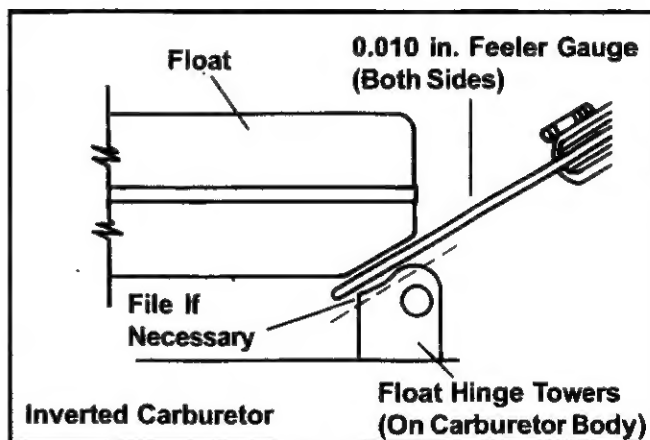


Figure 6. Checking Float Clearance.

5. Install the bowl gasket and baffle gasket. Position baffle gasket so the inner edge is against the float hinge towers.
6. Install the fuel bowl so it is centered on the baffle gasket. Make sure the baffle gasket and bowl are positioned properly to ensure a good seal.
7. Remove and discard the gasket from the bowl retaining screw. Install new gasket from kit on bowl retaining screw. Install bowl retaining screw. Torque screw to **50/60 in. lb.**
8. Reinstall the carburetor to the engine using a new gasket.
9. If readjustment is needed, refer to the carburetor adjustment section of the appropriate Engine Service Manual.

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To Install –

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2. **Carefully and slowly** remove the screws securing the throttle plate to throttle shaft. Remove and save the throttle plate as it will be reused. Discard the screws.
3. File off any burrs which may have been left on throttle shaft when screws were removed to prevent scratching the bore when removed.
4. Remove the throttle shaft from carburetor body. Remove and discard the foam rubber dust seal from throttle shaft. Temporarily save the old shaft for use in Step 2 in bushing installation procedure.
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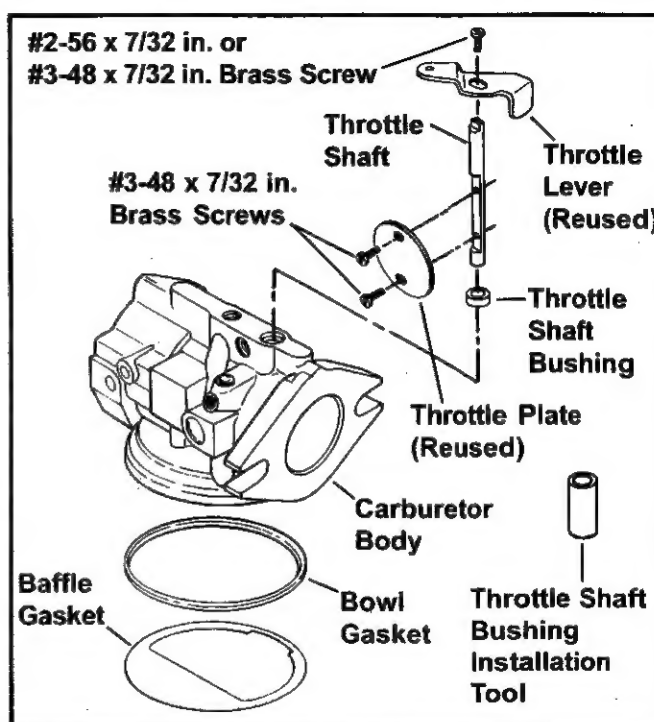


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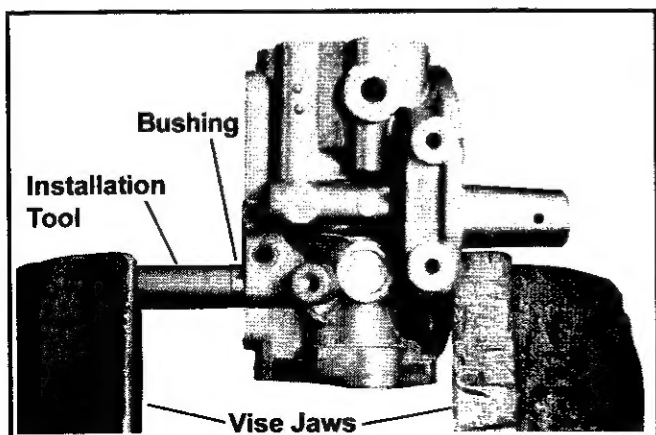


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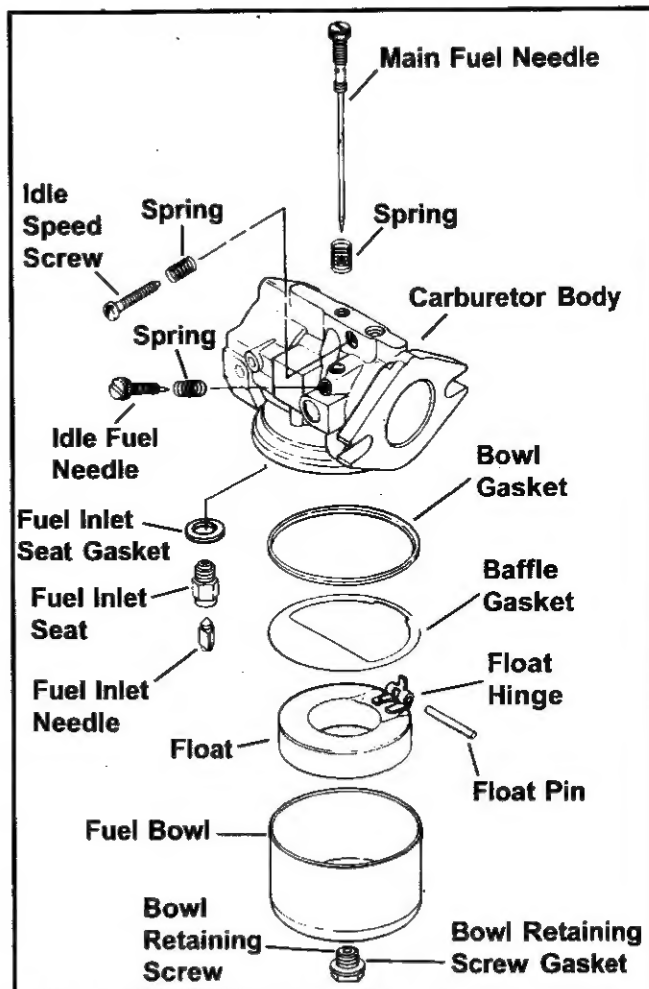


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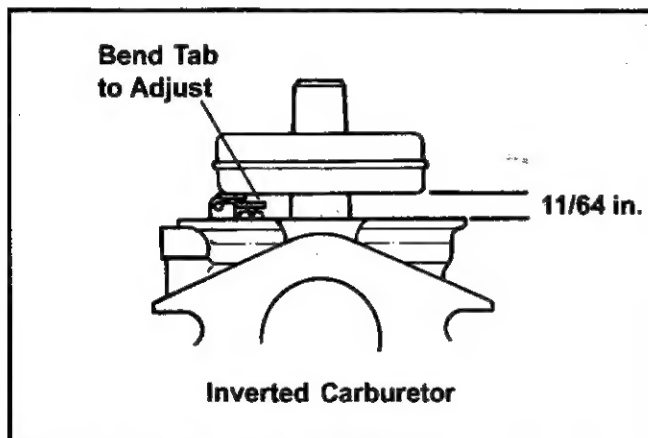


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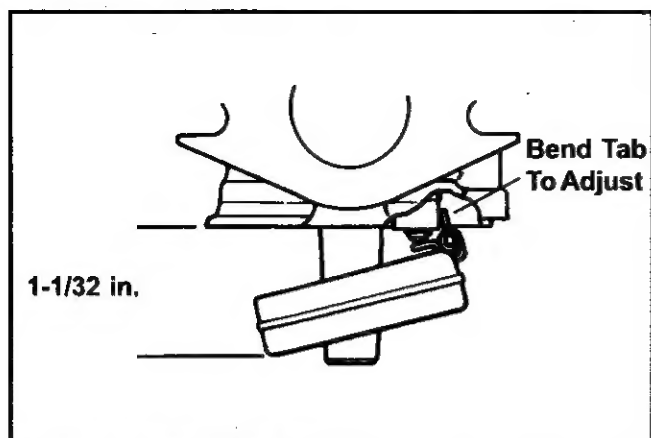


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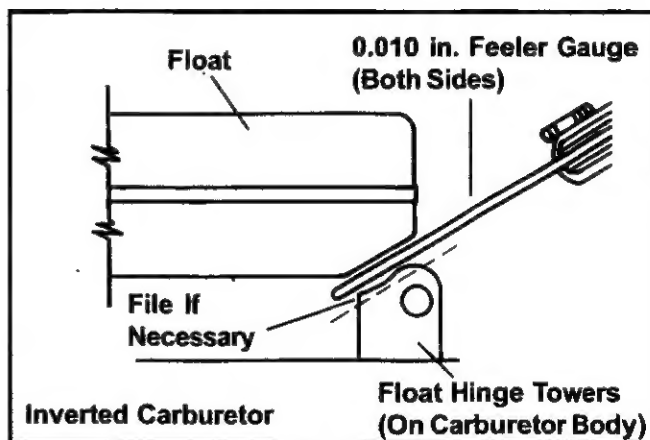


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